1 VQE results Aer Estimator (No Shots)

(Full Hamiltonian) Harmonic Oscillator $\Lambda = 4$ COYBLA Max 10K Iterations

Ansatz	Tolerance	Converged runs	Mean iter	VQE min E.	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time
RA r1 rl	1e−01	100/100	41	5.1203e−04	5.1203e−04	5.7933e−03	5.7933e−03	0e+00	00h 00m 11s
RA r1 rl	1e−02	100/100	75	9.119e−06	9.119e−06	7.7994e−05	7.7994e−05	-	00h 00m 16s
RA r1 rl	1e−03	100/100	132	1.2652e−07	1.2652e−07	7.4025e−07	7.4025e−07	-	00h 00m 35s
RA r1 rl	1e−04	100/100	214	6.4018e−10	6.4018e−10	8.0552e−09	8.0552e−09	-	00h 00m 59s
RA r1 rl	1e−05	100/100	327	1.1089e−11	1.1089e−11	9.1409e−11	9.1409e−11	-	00h 01m 27s
RA r1 rl	1e−06	99/100	679	8.3544e−14	8.3544e−14	7.4918e−13	7.4918e−13	-	00h 03m 34s
RA r1 rl	1e−07	99/100	659	5.5511e−16	5.5511e−16	9.8255e−15	9.8255e−15	-	00h 03m 40s
RA r1 rl	1e−08	98/100	559	0e+00	0e+00	5.5511e−16	5.5511e−16	-	00h 03m 20s
Ansatz	Tolerance	Converged runs	Mean iter	VQE min E.	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time

Table 1